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UNITED STATES DEPARTMENT OF AGRICULTURE  
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WEST VIRGINIA: ECONOMIC OPPORTUNITIES AND LIMITATIONS  
IN RURAL DEVELOPMENT

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WEST VIRGINIA: ECONOMIC OPPORTUNITIES AND LIMITATIONS  
IN RURAL DEVELOPMENT

by

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Introduction

The story is told of the circus elephant that was staked out to exercise after his performance each day. Round and around he would go, day after day, year after year. In time, his trainer discovered that for exercising he could dispense with the chain that tied the elephant to the stake--all he need do was put him in orbit, which was by now a well-worn path, and he would stay there. And he did. And as he went round, he would even tug at the imaginary chain, but never hard enough to break the circle.

All of us are like that elephant. We are creatures of habit. Each of us is chained by training and experience to his stake--and each of us goes round and round in his circle until a path is so firmly worn that we forget the chain that binds us, what it is made of, and what it would take to break it. In our day-to-day living we need not concern ourselves with the chain because we meet conventional problems which can be solved in conventional ways--allowing us to continue undisturbed in our circles. But unconventional problems require unconventional solutions--and here we must break the chain and the circle if we are to find workable solutions.

West Virginia, like the rest of Appalachia, is up against some very unconventional problems; problems which may require some very

unconventional solutions. The economic problem, according to two studies of the Southern Appalachians, 1/ is too few resources being divided among too many people. This granted, two solutions logically follow: (a) move resources in or (b) move people out. The first solution is difficult, and the second one unpalatable. We have attempted to apply the first solution, and the second one has applied itself. The emphasis has been on resources development--bringing capital in, upgrading the resources in the region and reorganizing them into larger, more efficient production units.

Some people are now beginning to suggest that in our emphasis on physical resources, we may be traveling a large circle. These people do not disparage these efforts, but merely argue that they are not enough. They would like to see a shift in emphasis from physical to human resource development. In the light of technological advances, and the subsequent high level of structural unemployment in the total economy, perhaps we should give serious consideration to their plea.

Before turning to the problems in human resource development, it is perhaps well for us to examine some of the problems of physical resource development in order to get some notion of the extent to which this path leads to a solution to the number one problem--unemployment, and consequent low levels of living. This problem has not been solved

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1/ U. S. Department of Agriculture, Economic and Social Problems of the Southern Appalachians, Miscellaneous Publication No. 205, (Washington: Government Printing Office, 1935), and Thomas R. Ford, Editor, The Southern Appalachian Region, A Survey, (University of Kentucky Press, Lexington, 1962).

via the physical resource development route. In this decade, the monthly unemployment rate in West Virginia has been as high as 16.6 percent of the civilian labor force (January, 1961) and has never been lower than 7.5 percent (September - October, 1963). 2/ The proportion of the labor force that is unemployed has decreased, but this has not meant that the number employed has necessarily increased. For example, consider the period September, 1961 to September, 1962 when unemployment decreased from 66,000 to 58,000. One might think that the number employed had increased. The disturbing fact is that in this same period total employment decreased by 14,000, and wage and salary employment decreased by 6,000. The decrease in unemployment resulted from a shrinking labor force. And this shrinkage continues--by way of out-migration and the withdrawal of job-seekers from the labor force. 3/

#### Rural Resource

#### Rural Resource Development Alternatives

Let us now examine some resource development paths, more or less in vogue, to see whether they offer meaningful solutions. Efforts expended on relatively poor alternatives will delay the day when correct solutions are found.

#### The Farm Alternative

The first path, for convenience, shall be called the agricultural

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2/ West Virginia Department of Employment Security, U. S. Bureau of Labor Statistics, Charleston, W. Va.

3/ In September 1962, total civilian labor force was 597,000 persons. In September, 1963, it had dropped to 590,000. Source: West Virginia Employment Trends, West Virginia Department of Employment Security, U. S. Bureau of Labor Statistics, Charleston, W. Va.

circle. West Virginia has a large number of farms, (44,000 according to the last census) but most of them are small, and most of the families living on them have a low income. Enlarging small farms so that they can support the families living on them is a time-honored solution. As farms are enlarged, it is argued, large-scale, low-cost technologies become available, increasing net income by reducing per unit costs and increasing the number of units produced. As output increases, income to the farmer from Federal farm programs goes up also because commercial programs are tied to units of input or output. It has been argued on the other side, however, that Appalachian farm enlargement is economically not feasible because of the poor quality of the land resource in the area, and because of the nature of the human resource on Appalachian farms.

Farm enlargement. Several years ago I conducted research to determine the feasibility of Appalachian farm enlargement as a solution to the low income problem of small farmers. To evaluate the adequacy of the land resource, a sample of small farms was enlarged to several times their average size, then the acreage of useable land in these enlarged units was determined and then this acreage was compared with the acreage required for an adequate-sized commercial unit. In order to evaluate the adequacy of small farm operators to handle a commercial unit, those who were over-age or disabled, were subtracted from the total of small farm operators, and of the remainder a number of questions were asked to determine their readiness to enlarge their operations.

The first question that needs answering in research of this kind is "What is an adequate-sized farm?" Research by the U. S. Department

of Agriculture indicates that if a farm family is to earn \$2,500 to \$3,500 in labor returns, the farm will need to gross between \$10,000 and \$12,000 4/

A dairy farm and a beef-sheep farm were selected as economical commercial units for the rough and hilly land in West Virginia. 5/ These two units served as standards that must be met if the families' low income problem was to be solved. The budgeted dairy unit was built around a 35-cow herd. It was assumed that all the forage would be produced on the farm, and all concentrates would be purchased. It was estimated that a total of 136 acres would be needed for this operation, 46 acres of cropland and 90 acres of improved permanent pasture. The cows were expected to yield an average of 10,000 pounds of 3.8 percent milk. The output of this unit would consist of milk sold on the Grade B market, cull cows, heifers, and calves. The value of this output at long-term normal prices would be \$12,209. 6/

The budgeted beef-sheep unit was built around a 100-cow beef herd and a 100-ewe flock. As in the dairy unit, all forage would be produced on the farm and needed concentrates would be purchased. This

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4/ Harold E. Barnhill, Resource Requirements on Farms for Specified Operator Incomes, Economic Research Service, U. S. Department of Agriculture, Agricultural Economic Report No. 5 (Washington: Government Printing Office, 1962).

5/ The dairy unit was budgeted by an inter-departmental committee of the Division of Agriculture, West Virginia University, while the beef-sheep unit was budgeted by the author in consultation with members of the Animal Husbandry and Agronomy Departments, West Virginia University.

6/ For the most part, long-term normal prices were used in budgeting both farms. These are published in Agricultural Price and Cost Projections, (for official use only), Agricultural Research Service-Agricultural Marketing Service, U. S. Department of Agriculture, September 1957.

unit would require a total of 309 acres, of which 110 acres would be cropland and 199 acres in improved permanent pasture. The beef herd was expected to raise a 90 percent calf crop and the sheep flock a lamb crop of 145 percent. The output of this unit would consist of feeder calves, cull cows, lambs, cull ewes, and wool. The value of this output at long-term average prices would be \$11,278. Better-than-average management was assumed for these units.

Small West Virginia farms, those grossing less than \$5,000 annually, have considerably less useable acreage than these hypothesized commercial units require. In West Virginia, small farms average about 125 acres, with only 30 acres of cropland and 40 acres of pasture land. 7/

To test the practicability of enlarging farms by adding land, a sample of 100 West Virginia small farms were drawn and then located them on Land-Use Capability maps furnished by the Soil Conservation Service, expanded each to 360 acres, then to 1,000 acres, the useable crop and pasture land in these expanded units were determined and compared with requirements for the commercial dairy unit and the beef-sheep unit. This procedure assumed that farmers would be willing to expand their farms to 360 acres for a commercial dairy unit, and to 1,000 acres for a commercial beef-sheep unit. Farms were expanded on

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7/ Census of Agriculture for 1959. In that census 90 percent of all West Virginia farms were small farms. The census categories "harvested cropland," "cropland used only for pasture," and "cropland not harvested and not pastured" were considered cropland in this computation; "other pasture" and "improved pasture" were considered pasture land. For all practical purposes, the cropland figure is over-stated since half of the cropland is in the latter two categories.

the maps by drawing a square of the appropriate size (360 acres and 1,000 acres) with the original farm in the center. This procedure was necessary since the Soil Conservation Service did not possess maps with boundaries of neighboring farms marked in. In calculating the amount of land in these enlarged units, it was assumed that SCS land-use recommendations would be followed. Open land of land-use capability Class I-IV was considered cropland, Class VI as extensive pasture, and Class VII-VIII as suitable only for woodland, wildlife use, etc. (SCS does not classify any land in West Virginia as V).

Cropland fields not meeting minimum size standards were considered not suitable for tillage with modern machinery and equipment and were counted as pasture land. Thus, regular-shaped fields of less than 3 acres and irregular fields of less than 5 acres were considered suitable only as pasture. Since SCS describes Class VI land as suitable for extensive pasture, woodland or wildlife, all such land was valued at one-third that of other land used as pasture. Land stocked by trees of any size by 10 percent or more was defined as woodland, and all woodland was assumed to remain so. 8/

In the process of expanding these 100 small farms to 360 acres each, 81 of them failed to provide sufficient land for the commercial dairy operation. When these farms were expanded to 1,000 acres, 81 again failed to provide enough land for the beef-sheep operation. The reasons

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8/ For each enlarged farm, total cropland was equal to the sum of open land of capability Class I-IV, which lay in regular fields of 3 acres or more or irregular fields of 5 acres or more. Total pasture land was equal to one-third of the open Class VI land plus the open land in Class I-IV which did not qualify as cropland.

for the high proportion of failures even when small farms are expanded to several times their average size are not too difficult to understand. Over half of the land on and surrounding farms in West Virginia is woodland. Although almost half of the land is open, only a fourth was of cropland capability and less than 15 percent was cropland in fields of size and shape that would allow the use of power machinery and equipment.

In actual practice, the useable land on most of these enlarged farms would be even less than this analysis indicates. The aerial photographs used were 10 to 20 years old, and the criteria used to classify land on the maps are out of date. Some of the land shown on the photographs as open has reverted to brush or woodland, and some of the open land classified as suitable crop or pasture land has been reclassified by SCS into a lower use category. Also, it was determined from the maps and from personal knowledge of the area, that some of the small farms that were successfully expanded were located next to residential areas into which in reality they could not expand.

But even assuming that 19 out of 100 farms could be legitimately expanded, this means that if all small farms were expanded in like manner, less than 10 percent might be successful because the better land tends to be concentrated in certain areas, and one successful expansion in those areas utilizes land that a neighboring small farm might expand into, thus precluding its successful expansion.

Thus, Appalachian land resources present a formidable obstacle to farm enlargement. Even if farmers were willing to consolidate land into 360-acre units (to obtain 136 acres of crop and pasture land) for

a dairy operation or to consolidate land into 1,000-acre units (to obtain 309 acres of land) for a livestock operation, perhaps nine-tenths of the consolidations would not provide sufficient land. And in view of the quite indiscriminate scatter of fields over a rugged topography, 360-acre dairy farms and 1,000-acre livestock farms already represent uneconomic units because of size.

Enlarging farms by adding land also requires an addition of labor, capital, and management. If land is not added in the enlargement process, more of the other inputs are required. In either case, these inputs must be increased several times to attain commercial size. Hence, the human resource on Appalachian farms in the role of labor and management is crucial to enlargement in whatever form it takes. Let us now examine the human resource on small West Virginia farms.

Importance of management. Data from a sample of 422 low-income farm operators <sup>9/</sup> on small West Virginia farms were evaluated to assess their suitability for commercial farming. The labor requirement was assumed met if the operator was able-bodied, male, and under 65 years. The "managerial" requirement reflected factors that, if lacking, would effectively block the decision to enlarge farms. The requirements were: (1) a recognition of family income as inadequate, (2) a recognition of the possibility of earning more income by farming, and (3) a willingness to mortgage real estate for the purpose of farm enlargement. A farm operator had to meet the labor requirement and all of the "managerial"

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<sup>9/</sup> Incomes of these operators averaged less than \$4,000 over a two-year period 1957-58, and they operated farms which grossed less than \$5,000 annually.

requirements to qualify.

Only 2 percent of the sample farm operators qualified by meeting both the labor and "managerial" requirements. Over half failed to meet the labor requirement because they were over age, female, or disabled. Of those remaining, about a third failed to qualify as each of the three "managerial" requirements was added. Since the set of requirements used here as criteria are necessary but certainly not sufficient conditions for successful enlargement and subsequent operation of an adequate-size commercial unit, I concluded that these operators had no future in commercial agriculture for all practical purposes.

These results are not altogether surprising. The low proportion meeting the labor requirement is consistent with general knowledge about the area. The proportion of farm families with over age, female or disabled heads is higher in the Appalachian area than in the rest of the country. The not unexpected finding here is that these families are concentrated in the low-income, small farm category.

The all but total failure of these operators to meet the "managerial" test is equally understandable. Two-thirds of the able-bodied operators under 65 years were 45 years or older and three-fourths of them had only a grammar school education or less.

Perhaps of some importance is the fact that these individuals are part of a folk culture which, because of its orientation toward tradition and sentiment, tends to produce individuals who do not adapt readily to the entrepreneurial role. While the mountain area is undergoing rapid cultural change, remnants of the older culture still remain in the rural areas, hindering the development of the

entrepreneurial role, without which subsistence farms cannot be converted to commercial units. It is likely, perhaps, that this "cultural obstacle" is sufficiently embedded in the social matrix to effectively block the present generation of low income farmers on small farms from enlarging their farms to commercial units, even if other conditions were more propitious.

Thus, it would appear that farm consolidation is not a live alternative for low income small farmers. Since underemployment on our small West Virginia farms may be equivalent to roughly 10,000 unemployed, 10/ we may have to find employment outside agriculture for this number of farmers if they are to raise their incomes to an adequate level. Since 39,000 of our 44,000 farms are small, not more than 5,000 farmers may have a future in commercial agriculture, and attempts to provide an agricultural solution for the others may be useless.

#### The Forestry Alternative

Many people have come to recognize that land is a tremendous obstacle in trying to develop farming or other industries that require flat land. As a consequence, some have resigned themselves to an extensive use of land and have fallen on forestry as the solution. Out of this has grown the notion that West Virginia can solve its present unemployment problem with forest industries development. For convenience, let us call this the forestry circle.

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10/ Anthony L. Pavlick, Effects of Federal Farm Programs on Incomes of Appalachian Farmers, unpublished PhD dissertation, University of Minnesota, Minneapolis, Minn., 1963, pp. 102-111.

Increased Local Processing. One strand of the argument is that much of forest output now shipped out of West Virginia for processing could be processed in the State, providing a considerable number of new jobs. That may well be, but this solution is not without its difficulties. Take, for example, a relatively small item, pulp production. Processing West Virginia's annual cut of 60,000 cords inside the State rather than outside would increase employment by some 150 persons. But where does one get funds for constructing a processing plant? The Area Redevelopment Act, under which a loan for plant construction may be made available, specifically forbids relocation of plants from one area to another or the establishment of branch plants if it results in decreased employment in the area of original location. <sup>11/</sup> And it is doubtful that private capital would venture into industries where adequate facilities already exist.

Another strand of the forestry argument is that our forest land can support extensive lumber, remanufacturing, pulp, and paper industries which would utilize all surplus labor. This is quite possible, but not in the immediate future. Though West Virginia is well forested, the forests are in a low state of productivity and currently support just 5,000 employees.

Employment Potentials. Once the forests were restored to high productivity, however, they could support many times that number. The U. S. Forest Service estimates that logging, sawmilling and remanufacturing might employ around 38,000, 52,000 or 90,000 men depending upon how much of West Virginia's saw mill product was remanufactured.

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<sup>11/</sup> Public Law 87-27, 87th Congress, S. 1, May 1, 1961.

Added pulpwood production could give employment to 16,000 men; processing it could increase employment to 34,000, and processing this pulp to paper would increase employment to 64,000. 12/ If forestry offered this kind of employment today, West Virginia's unemployment problem might be solved. But it does not because these potentials are well into the future. Raising the productivity of our forests to the required level will take 40 years or more. 13/ And before we go much further in projecting forestry employment potentials, we must develop the necessary research analysis that would give us information about future levels of demand for forest products. Thus, it appears that in the short-run at least, forest industries development offers little hope of easing the total unemployment problem.

Forest Improvement Program Potential. Incidentally, a long-range forest improvement program could offer some possibilities for employment now and in the future. The U. S. Forest Service estimates indicate that this work could provide 8,800 jobs annually the first decade; 4,400 jobs the second decade; and about 1,500 jobs the third decade. 14/ The problem is, how does the employment (and income) come about? Most of the woodland is held in small private ownerships. Woodland improvement provides no income of any consequence until after

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12/ The Timber Resources of West Virginia and a Report on the National Forests of West Virginia: Reports prepared by the Forest Service, U. S. Department of Agriculture, Senate Document No. 33, 87th Congress, First Session, presented by Mr. Byrd of West Virginia (Washington: Government Printing Office, 1962), Tables 7 and 8.

13/ Ibid., p. 8.

14/ Ibid., p. 11.

the forest is fully developed, some decades away, and even then only if each owner has a woodlot several times larger than the average holding. Partial employment on the other hand may be had by subsidy programs of some sort. A more radical solution would be the purchase of large tracts of forest land by private firms or public agencies, with the unemployed in the area subsequently hired for forest improvement work. It has been estimated that forest improvement work might provide enough employment to utilize all the underemployed farm-operator labor on farms in the forest project area, but no more. <sup>15/</sup> This again assumes that the demand for wood products will remain strong in the long run. Otherwise forestry may not pay for itself. Planning for multiple-use of forests would alleviate this situation somewhat.

#### Industrial Development Potential

An analysis of the possibilities for new employment by bringing new industry into the area would yield similar conclusions---some new employment here and there, but not enough to soak up the current pool of unemployment. Again, topography is a limitation. Many communities do not have sufficient amounts of flat land that industry demands. Nor do they have the skilled labor many industries demand. Other than industries that utilize raw materials in the area, one can expect that most of the new industrial plants will locate in the Kanawha and Ohio valleys contiguous to the industrial areas already there, where they will compete with our larger farmers for some of the better agricultural land in West Virginia.

<sup>15/</sup> Pavlick, op. cit., pp. 112-118.

In summary, the manipulation of physical resources can lead only to a partial solution of the problem of unemployment. The bundle of physical resources is not overly large and technological advances have not been to West Virginia's advantage. Thus, it appears that the development of the State's human resources, however that may be accomplished, may prove a very necessary adjunct in a total long-run solution.

#### Development of Human Resources

Since every community is looking for "an industry," and thus is conversant with this topic, it might be well to look at education as an industry, analyze it in these terms to determine whether the analysis can yield some clues as to what our future course might be.

Need for improvement. The public school is an enterprise owned by the community and managed indirectly by its citizens through elected and appointed officials. Since a large part of the financing is local, it follows that the poorer communities tend to invest less in their educational plants and to operate them at lower cost. This tendency is reflected in the West Virginia educational industry. Capital outlay per pupil in West Virginia (\$24) is less than a third of capital outlay per pupil for the Nation (\$86), and current expenditure per pupil for West Virginia (\$298) is just two-thirds that for the Nation (\$432). <sup>16/</sup> Other things equal, factories which spend less per unit of output

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<sup>16/</sup> U. S. Department of Health, Education and Welfare, Office of Education, Digest of Educational Statistics, OE-10024-63, Bulletin 1963 No. 43 (Washington: Government Printing Office, 1963).

produce a less-finished product. Other things are not equal, however, again to the disadvantage of West Virginia. States with wealthier economies have been able to consolidate a larger proportion of their schools, taking advantage of the efficiencies of scale, and at the same time further improving their product.

The less-well finished product of the West Virginia educational enterprise is reflected in the data of a recent survey. <sup>17/</sup> In that study, achievement for grades 3, 6, 9, and 12 was compared with two standards--national norms and West Virginia expectancies. Expectancy refers to the national achievement norm adjusted for general intelligence (I.Q. scores for West Virginia pupils averaged about five points lower than the national average for each grade). Near the end of grade three, achievement of West Virginia pupils was already below expectancy and half a grade below the national norm. Near the end of grade six, achievement had fallen more than a half grade below expectancy and more than a whole grade below the national norm. Near the end of grade nine, West Virginia pupils were more than a whole grade behind their own expectancy and almost two whole grades behind ninth-graders over the nation. In grade 12, West Virginia pupils failed to achieve national norms in the four subjects tested, though they exceeded expectations in two subjects.

Given this discrepancy in the quality of education, grade for grade, we also find that West Virginia falls behind the Nation in

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<sup>17/</sup> Legislative Interim Committee, State of West Virginia, A Survey of the Educational Programs of the West Virginia Public Schools (The Survey Staff, E. K. Feaster, Director), 1957, pp.XVII-XVIII.

years of schooling completed by its citizens. The median school year completed by persons 25 years and over was 10.6, for West Virginia, 8.8; the percentage with less than 5 years of schooling is 8.3 for the United States, and 11.0 for West Virginia.

The poorer quality product of West Virginia's educational industry is reflected in the lower price paid for this product. Incomes of West Virginians tend to be lower than incomes for those employed in the Nation generally, whether the individual stays in the State or migrates. The fact that West Virginia has not been able to employ all of the output of its educational plant combines with lower quality education to produce undesirable effects for the individuals, the community and the State. If the individual migrates, he finds that, though he may be better educated than those he left behind, his education is inferior to those with whom he must compete in the terminal job market. As a consequence, only the poorer jobs are available to him. The community he left behind has lost permanently the investment it has made in him. If the individual does not migrate, but stays in the community, his poorer quality education will prevent his being as productive as he potentially is, again to the detriment of the community and the State.

Some notion of the cost, to the community and the State, of a lower quality education, combined with outmigration, may be had by considering the fact that education costs \$300 per pupil per year. A high school graduate who migrates represents an investment loss of \$3,600. Since his employment in the terminal area tends to be unstable, the more or less regular waves of migration and back-migration

have a re-stabilizing effect on both the home community and the community into which he moves. School dropouts cost the school less but cost the community more in terms of unrealized productivity and social unrest.

What we have here is an economic production unit which exports some of its product, without receiving adequate payment for it, and underemploys part of the remainder. On strict economic grounds, industrial plants operating in this way would have closed their doors long ago. But the educational factory remains open and continues production, however poor, because the obligation of the community to its youth is more than economic. Nonetheless, economics sets limits, and the continual drain of resources without adequate compensation weakens the ability of the community and the State to honor its obligation to its young people.

And now the difficulty is being compounded by automation. The market for unskilled labor is rapidly drying up in the community, the State, and the Nation, and the product of West Virginia schools is in serious danger of finding no market. And here is the rub! The typical worker has nothing to offer but himself. And when the economy no longer needs him, it does not hire him, does not pay him, and he is, then, outside the stream of development. Therefore, if the bulk of West Virginia's human resources are to participate in development, and benefit from development in the future, then they must be educated and trained in the manner that the economy demands. Since the economy increasingly requires educated and trained workers, educational plants must adjust production to meet this new demand.

Upgrading the product of West Virginia's educational plants will require increased expenditures of money and effort. To improve schools to equal the national average, assuming equal expenditures yield equal results, would require an added expenditure of about \$200 per pupil per year, or a total of some \$80 million annually. This is an impossible new expenditure for a State whose economy is in a recession. Yet West Virginia must begin to move in this direction. West Virginians must invest more in education (in human resources) on the local and state levels, and at the same time hope that a workable and more equitable system can be devised through which they can be reimbursed for a commodity, they have up to now, largely exported to other areas.

Role of local leaders. Local development leaders have a special obligation to devote themselves, personally, to the cause of education. They recognize the need for education and training in a dynamic economy, and only they can persuade the community of this need. This will require much effort--including such things as increasing the esteem the community holds for the school, the school teacher, the student; particularly, the good school, the good teacher, the good student. Local leaders can also devote effort to providing new vocational training where needed, and the termination of training that has become obsolete. This is a difficult decision since we have no clear idea of future demands for most skills. Research is needed to determine what vocational skills are likely to be demanded in the future.

In upgrading education, perhaps rural leaders have the most

difficult job. By most indexes, rural schools are the poorest. Yet because rural areas have been hardest hit by outmigration, and will probably continue to be, it is imperative that rural schools provide a quality of education to allow those who migrate to make a successful adjustment and those who stay to carry on the difficult task of developing a rural community.

### Conclusions

Rural leaders may take heart in the concept of economic development as one of improving per capita real income rather than in increasing total economic activity in the community. The former concept allows a community to develop in the sense of making it a better place for the people who live there, in spite of the possibility of a net loss of population, or no gain. The latter concept makes development for many rural communities difficult or impossible.

And when all is said and done, in spite of the progress made with our physical and human resources, we still may be walking a large circle unless the overall economy performs at a high level. West Virginia's economy is tied to the national economy, and its performance in large measure determines the State's growth. There is need currently for a broader and more rapid rate of economic growth on the national level, if the maximum benefits of our local development efforts are to be realized.

Overall, West Virginia's economic future may appear bleak. Perhaps, it is not as bright as we might wish for. On the other hand, there are good reasons for optimism. West Virginia is mobilizing its physical resources, and there is an increasing awareness of the need to

upgrade the schools, and train and retrain unskilled workers. The Nation is becoming increasingly concerned, and is providing programs that will help West Virginia to develop.

Now for some brief concluding remarks. Efficient development will depend upon a proper balance in the development of two bundles of resources--physical and human. Since by training and experience, it is more common to think of development in terms of physical resources, more effort may be expended on this alternative than returns may justify. In fact, some efforts along this line may show no return at all. Before we launch into a full scale attack on physical resource development, it behooves us to examine carefully those areas where development is not possible, or returns are not justified, in relation to returns afforded by the development of the human resources. Studies have shown, time and again, that investment in the human factor pays large returns, and explains in large measure the social and economic advances of the United States. Aside from this, the opportunity for each citizen to realize his own potential is a birthright, and depends upon the opportunities afforded him for development. Up to now, insufficient resources have been devoted to human development, and as long as we continue in this direction, we may be missing the largest opportunity for bettering the welfare of all West Virginians.





